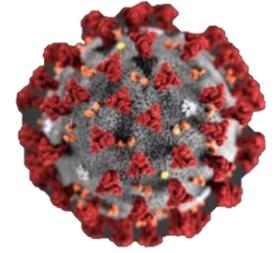


New Hampshire Coronavirus Disease 2019 Weekly Call for Healthcare Providers and Public Health Partners



May 20, 2021

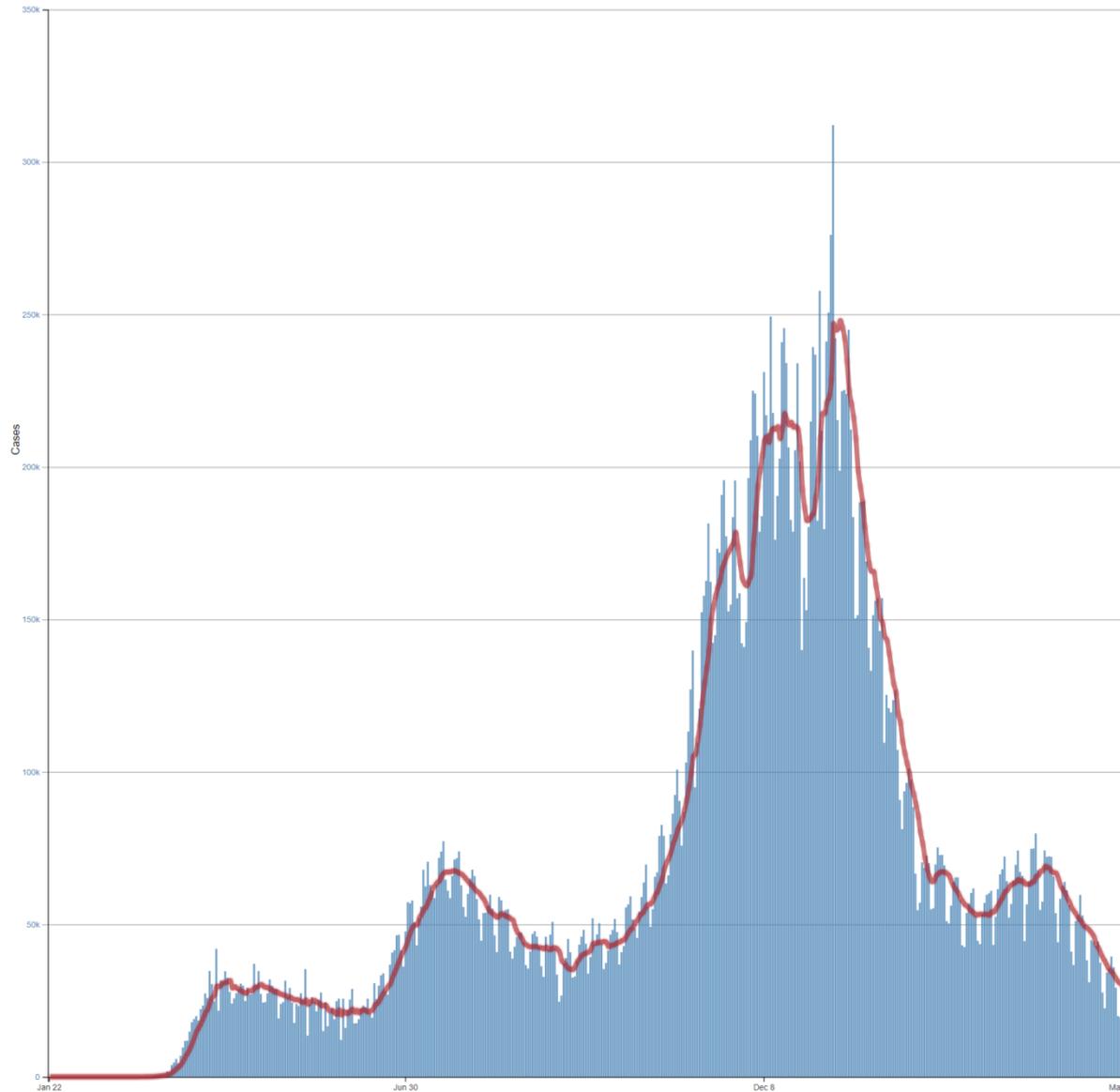
*Ben Chan
Elizabeth Talbot
Beth Daly
Lindsay Pierce*

Thursday noon-time partner calls will focus on science, medical, and vaccine updates geared towards our healthcare partners

Agenda

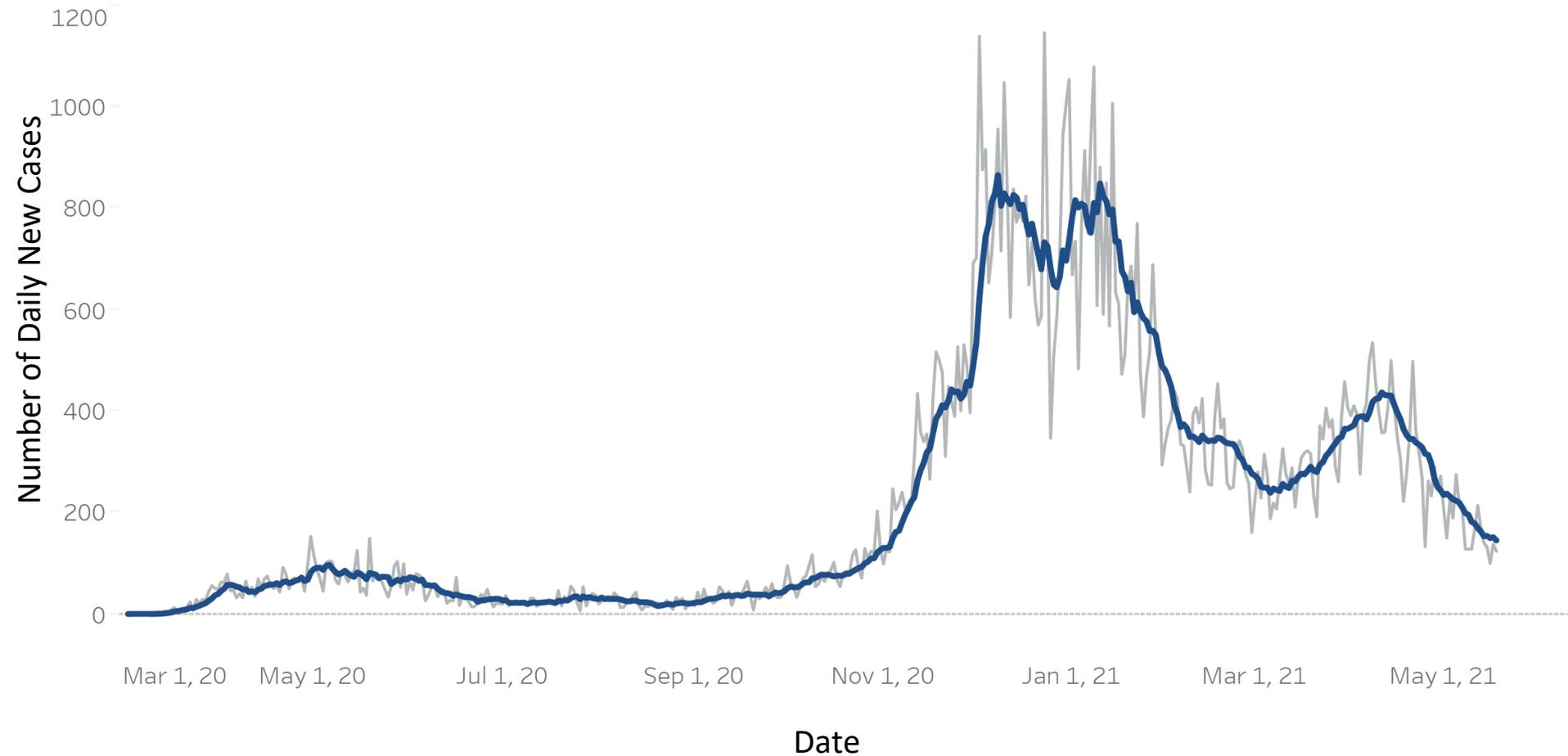
- Epidemiology update
- NH DPHS [guidance for people who are fully vaccinated](#)
- CDC [Science Brief](#): Mask use to control spread of SARS-CoV-2
- Questions & Answers (Q&A)

U.S. National Daily Incidence of COVID-19



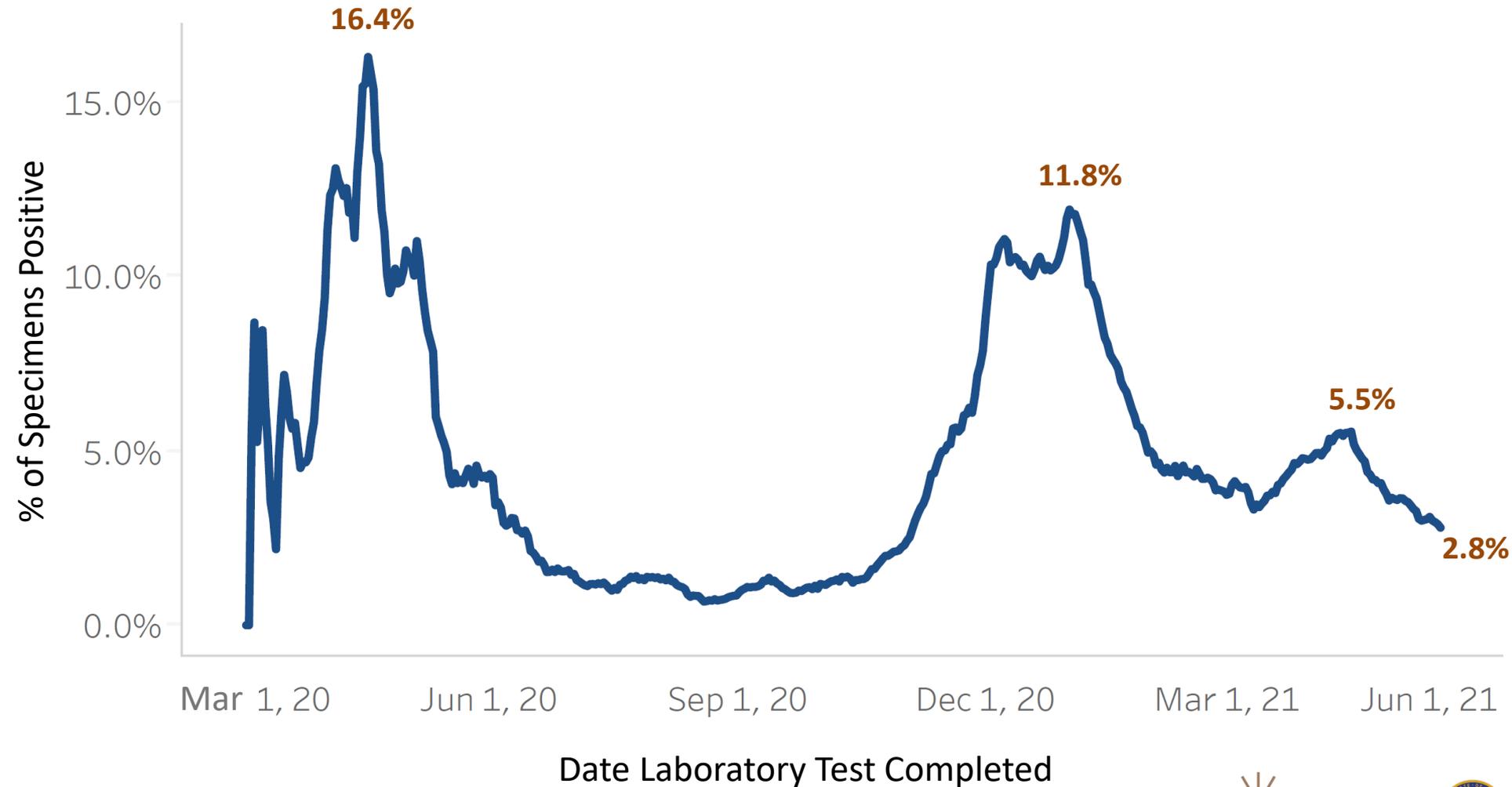
https://covid.cdc.gov/covid-data-tracker/#trends_dailytrendscases

Number of New COVID-19 Cases per Day in NH



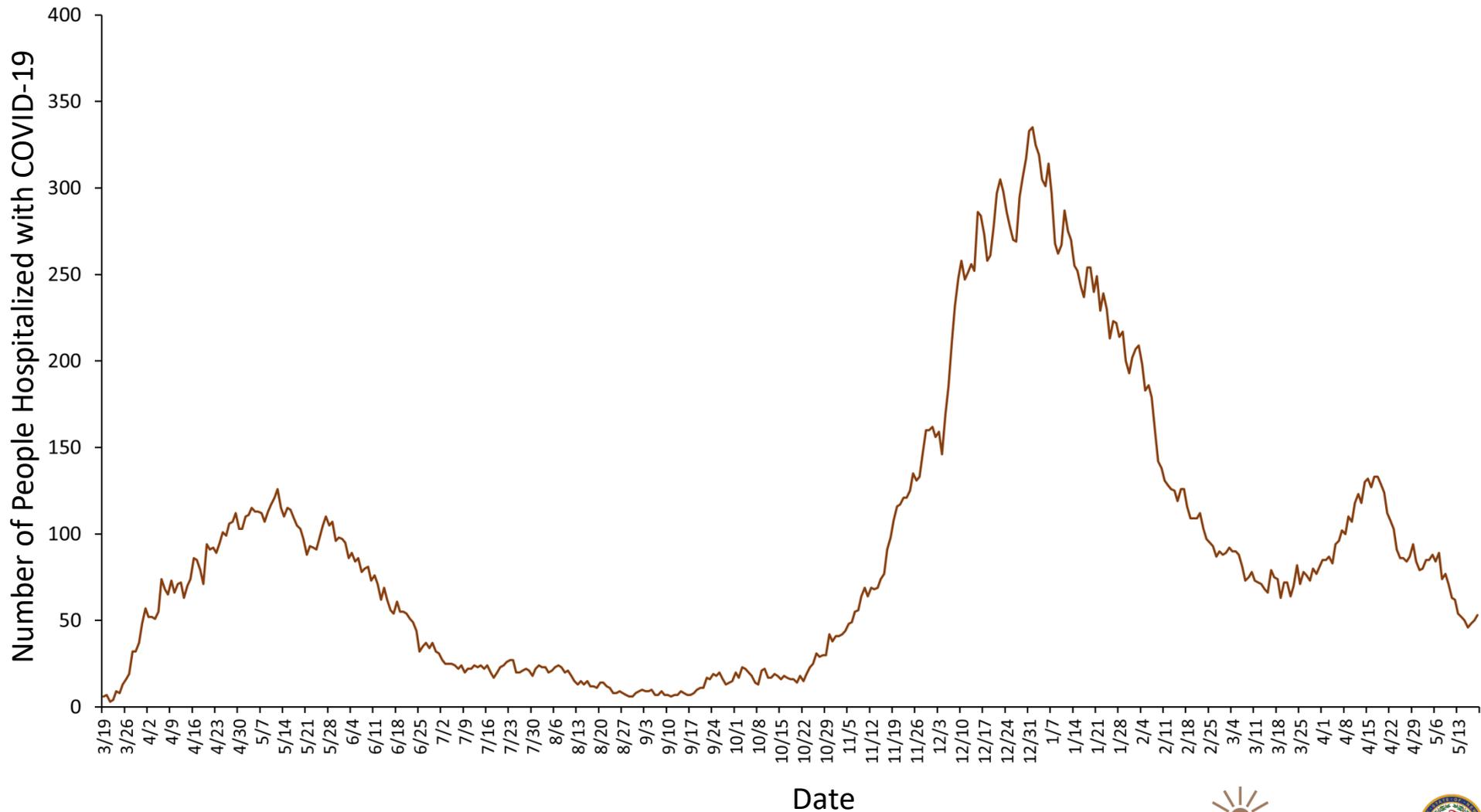
<https://www.nh.gov/covid19/dashboard/overview.htm#dash>

% of Tests (Antigen and PCR) Positive for COVID-19 (7-Day Average)



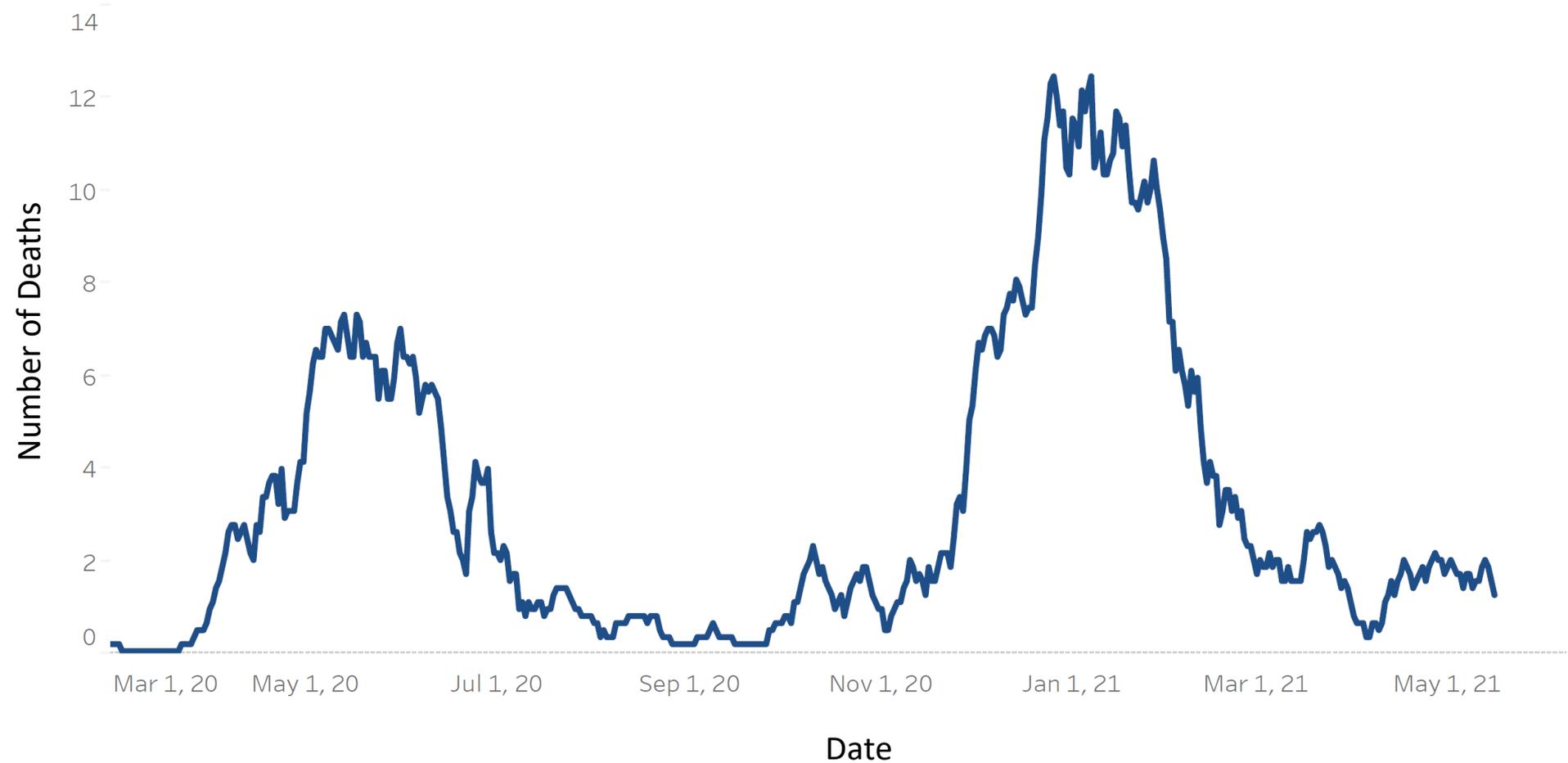
<https://www.nh.gov/covid19/dashboard/overview.htm#dash>

Number of People Hospitalized with COVID-19 Each Day in NH (Hospital Census)



<https://www.nh.gov/covid19/dashboard/overview.htm#dash>

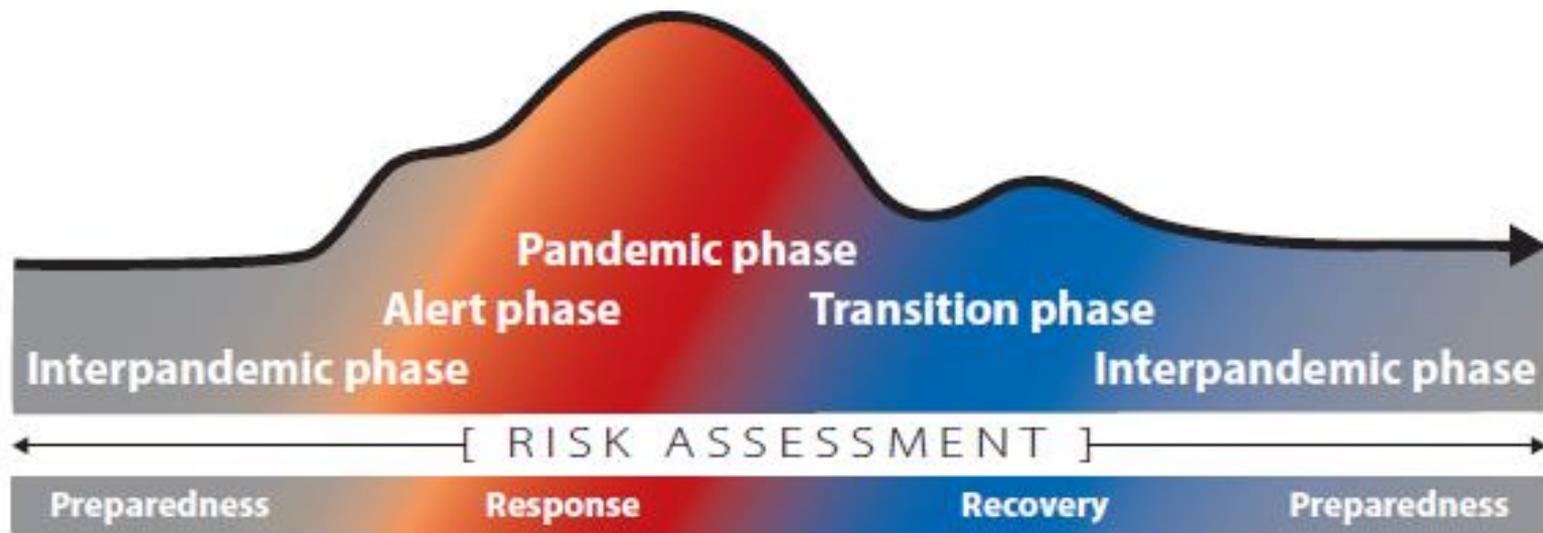
Average Number of COVID-19 Deaths per Day in NH (Based on Date of Death)



<https://www.nh.gov/covid19/dashboard/overview.htm#dash>

We Are in a Transition Phase of the Pandemic

Figure 1. The continuum of pandemic phases^a



^a This continuum is according to a "global average" of cases, over time, based on continued risk assessment and consistent with the broader emergency risk management continuum.

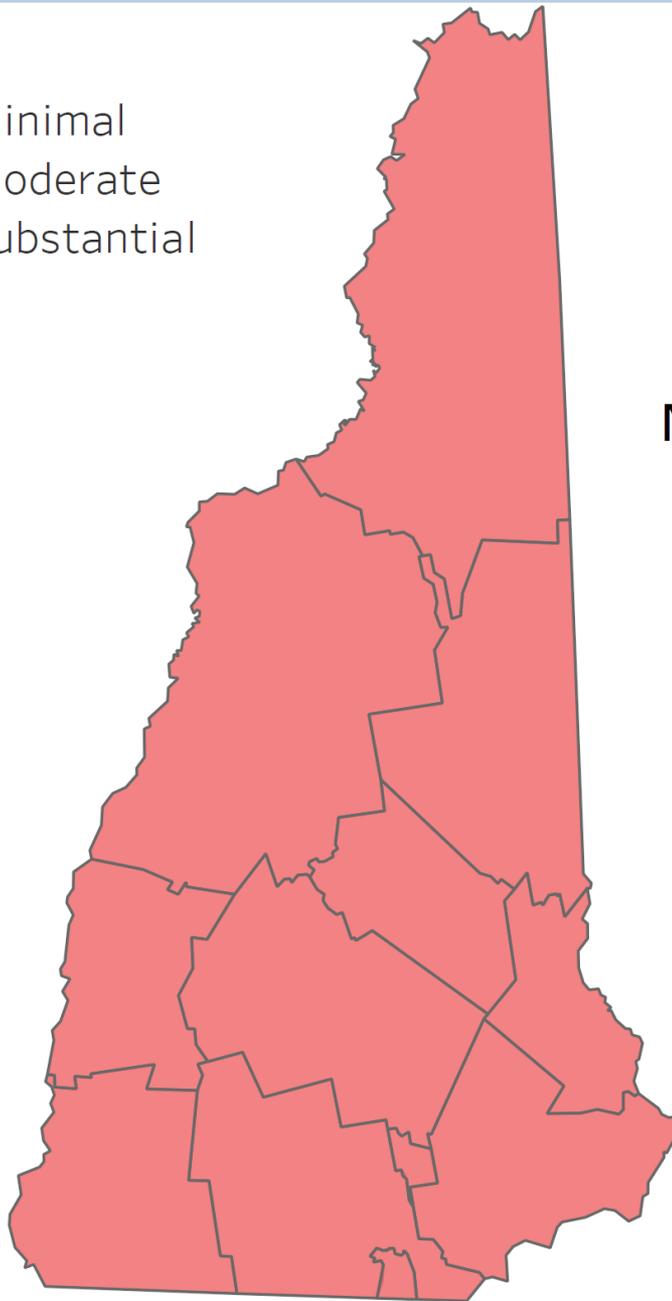
NH's Level of Community Transmission Metrics

Criteria	Level of Community Transmission		
	Minimal	Moderate	Substantial
COVID-19 PCR test positivity as a 7 day average	<5%	5 – 10%	>10%
Number of new infections per 100,000 population over prior 14 days	<50	50-100	>100

The community transmission level is assigned based on the highest level identified by either one of the criteria.

Level of Community Transmission

- Minimal
- Moderate
- Substantial



Level of
Transmission

Substantial

New Cases per 100k
over 14 days

167.1

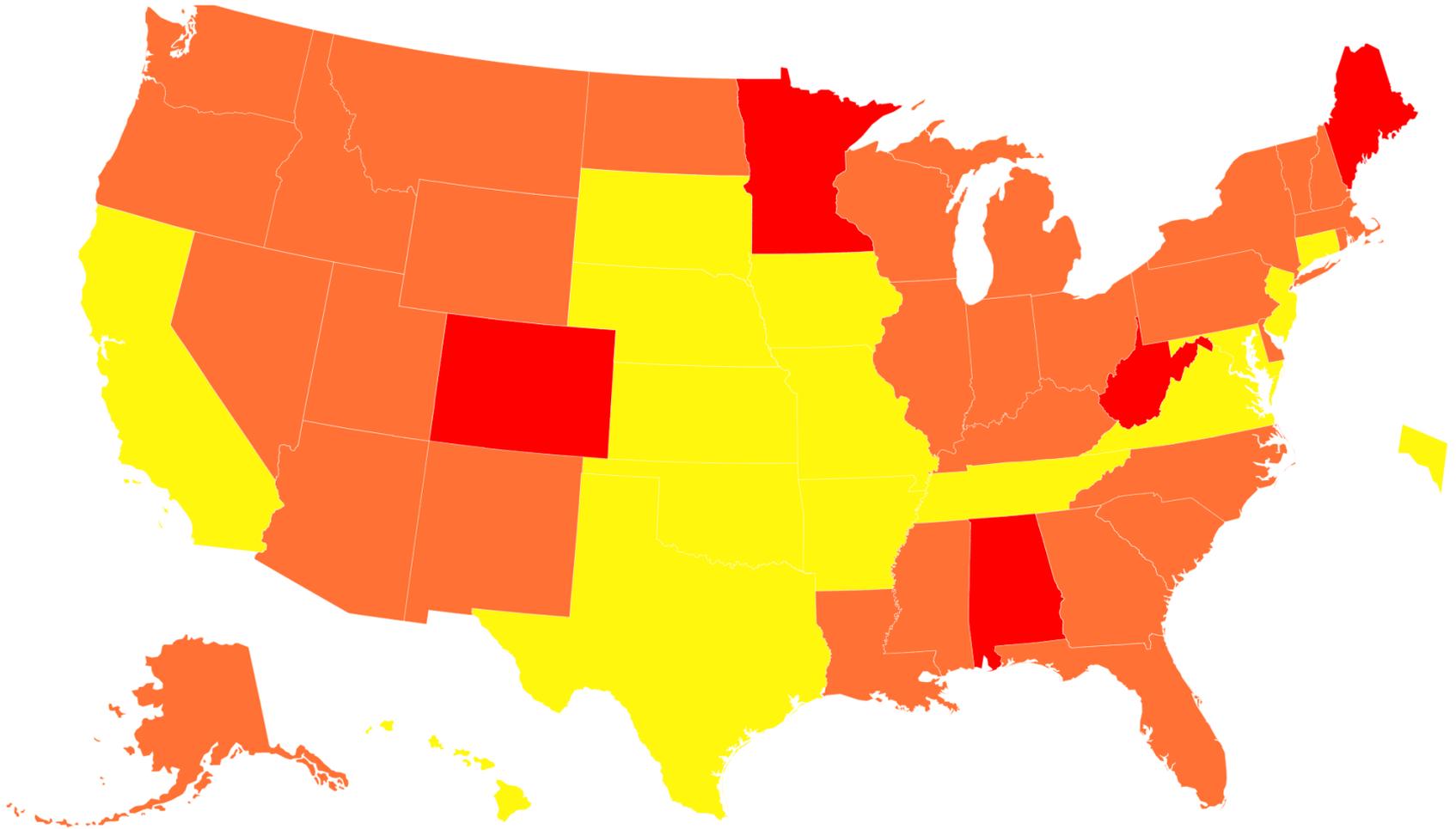
7-Day Total Test
Positivity Rate

2.8%

Data as of: 5/19/2021

<https://www.covid19.nh.gov/dashboard/schools>

CDC's Level of Community Transmission



Indicator - If the two indicators suggest different transmission levels, the higher level is selected	Low Transmission Blue	Moderate Transmission Yellow	Substantial Transmission Orange	High Transmission Red
Total new cases per 100,000 persons in the past 7 days	0-9.99	10-49.99	50-99.99	≥100
Percentage of NAATs ¹ that are positive during the past 7 days	0-4.99%	5-7.99%	8-9.99%	≥10.0%

NH DPHS Guidance for People Who Are Fully Vaccinated Against COVID-19

CDC's Interim Public Health Recommendations for Fully Vaccinated People

- CDC's [Guidance for Fully Vaccinated](#) (updated May 13th): “Fully vaccinated people can resume activities without wearing a mask or physically distancing, except where required by federal, state, local, tribal, or territorial laws, rules and regulations...”
- This guidance does not apply to all locations
- CDC continues to recommend everyone wears face masks & physically distance in certain settings, including on public transportation, schools, healthcare settings like hospitals and long-term care facilities (LTCFs), correctional facilities, and homeless shelters

NH Public Health Recommendations for People Who Are Fully Vaccinated When Around Others From Outside the Household

May 17, 2021

- COVID-19 vaccines are effective at preventing asymptomatic and symptomatic infection, and help to reduce spread of COVID-19
- Mitigation measures, however, are most effective when implemented at a population level (i.e., everyone does them)
- NH DPHS continues to recommend that everybody, including fully vaccinated people, continue to wear face masks and physically distance when indoors in public settings and around other people who are not fully vaccinated, or whose vaccination status is unknown

Should I Wear a Face Mask and Physically Distance in Settings Where I Am Around Other People?

(Guidance for Fully Vaccinated People)

TABLE: NH recommendations for physical distancing and face mask use for fully vaccinated people in settings where there is potential for close contact with others.

		Other Peoples' Vaccination Status	
		All fully vaccinated	Vaccination status unknown or not all are fully vaccinated
Location	Indoors	NO* 	YES 
	Outdoors	NO* 	NO* 

*Unless required to by a business or organization, or a person desires maximal protection

Note: Please note that if you are significantly immune compromised, then the recommendations above may not apply to you; please discuss your risk and protective measures with a trusted healthcare provider.

Additional NH Guidance

- People who are unvaccinated or only partially vaccinated should continue to wear face masks and physically distance when around other people indoors, or outdoors if unable to consistently maintain 6 feet of physical separation from others (unchanged guidance)
- NH DPHS continues to also recommend that businesses and organizations implement the layers of protection outlined in the NH [Universal Best Practices](#), irrespective of a person's vaccination status

Rationale for NH's Guidance

- Fewer than 50% of NH's population is fully vaccinated
- [Level of community transmission](#) remains “substantial”
- Increasing vaccination rates combined with continued use of mitigation measures will drive COVID-19 numbers lower more quickly, and help us exit from the pandemic
- No vaccine is 100% effective – continued use of face masks and physical distancing by everybody in public locations will help protect people who are unable to be vaccinated (e.g., due to age), or people unable to mount an adequate immune response, until community transmission is lower
- Businesses/organizations need implementable guidance – they can't verify a person's vaccination status making it difficult to implement CDC's guidance

Get Vaccinated!

- In the next several weeks, level of community transmission with likely continue to decrease
- We will more fully implement CDC guidance over the coming weeks (likely by the end of June)
- People who are not yet vaccinated (or not yet fully vaccinated), should schedule themselves to get a COVID-19 vaccine, if eligible (everybody 12 years of age and older)
- As we enter the summer months, more people will likely be out in public locations without masks and without physical distancing – get vaccinated to protect yourself!

CDC Science Brief: Face Masks

Science Brief: Community Use of Cloth Masks to Control the Spread of SARS-CoV-2

Updated May 7, 2021

[Print](#)

Summary of Recent Changes

- Last updated May 7, 2021



- Data were added from studies published since the last update that further demonstrate that mask wearing reduces new infections.
- Data were added that demonstrate the importance of mask fit to improve performance and reduce community exposure to SARS-CoV-2.
- A section was added on the health effects of mask wearing.

Adverse Health Effects of Mask Wearing

Research supports that mask wearing has no significant adverse health effects for wearers. Studies of healthy hospital workers, older adults, and adults with COPD reported no change in oxygen or carbon dioxide levels while wearing a cloth or surgical mask either during rest or physical activity.⁵⁷⁻⁵⁹ Among 12 healthy non-smoking adults, there was minimal impact on respiration when wearing a mask compared with not wearing a mask; however, the authors noted that while some respiratory discomfort may have been present, mask use was safe even during exercise.⁶⁰ The safety of mask use during exercise has been confirmed in other studies of healthy adults.⁶¹⁻⁶³ Additionally, no oxygen desaturation or respiratory distress was observed among children less than 2 years of age when masked during normal play.⁶⁴ While some studies have found an increase in reports of dyspnea⁶⁵ (difficulty breathing) when wearing face masks, no physiologic differences were identified between periods of rest or exercise while masked or non-masked.⁶³



Increasing Vaccine Confidence to End COVID-19

Community-Based Strategies

Course Description

Community leaders can effectively promote COVID-19 vaccination, help dispel rumors, and increase vaccine acceptance which can help lead us out of this pandemic. Although vaccines are safe and effective, less than half of the Northern New England population is vaccinated, far below levels needed to reach herd immunity. Public and private agencies are working to remove logistical barriers for people seeking vaccination. However, for diverse reasons, more than 35% of people are hesitant or resistant to the vaccine, despite strong public health recommendations. This course will discuss the science behind vaccines, explore common reasons for vaccine hesitancy, and provide strategies to overcome concerns so those in our communities will have tools to make informed decisions about vaccination.

Who Should Attend

Anyone active in your community!

- Leaders and influencers
- State and town officials
- Community health workers, home health nurses, health officers
- Faith leaders and lay leaders
- Business people
- School personnel
- Safety workers (fire, law, EMS)
- Food/housing support workers
- Other activists

Questions?

Email: ECHO@hitchcock.org

Website:
<https://go.d-h.org/project-echo>

Schedule

Every Friday in June from 12:00-1:00pm EST.

June 4th Vaccine Facts

June 11th Why are People Vaccine Hesitant?

June 18th Common Vaccine Concerns & Helpful Responses

June 25th How to Increase Vaccine Acceptance

Registration Information

To register, visit: <https://connect.echodartmouth-hitchcock.org/Series/Registration/1388>

Sessions are Free of Charge

Pfizer-BioNTech SARS-CoV-2 Vaccine Storage

[US FDA](#) previously extended storage period for **frozen vials at regular freezer** temperature to 2 weeks

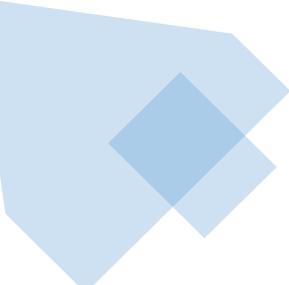
European Medicines Agency Committee for Medicinal Products for Human Use (CHMP) issued [new guidance extends the duration](#) of storage of **thawed** but unopened/undiluted vials at normal refrigerator temperatures (2-8°C; ~36-46°F) from 5 days to 31 days

This change will facilitate vaccination efforts, particularly those conducted outside of healthcare facilities, by reducing dependence on ultra-cold freezers

FDA In Brief: FDA Authorizes Longer Time for Refrigerator Storage of Thawed Pfizer-BioNTech COVID-19 Vaccine Prior to Dilution, Making Vaccine More Widely Available

May 19 [FDA](#)
[Announcement](#)

- FDA authorized undiluted, thawed vials to be stored 2°C to 8°C (35°F to 46°F) for up to 1 MONTH
 - Previously, only 5 days
 - Facilitates use in smaller clinics
- 



PRAC assessing reports of myocarditis with Comirnaty and COVID-19 Vaccine Moderna

EMA is aware of cases of myocarditis (inflammation of the heart muscle) and pericarditis (inflammation of the membrane around the heart) mainly reported following vaccination with Comirnaty. There is no indication at the moment that these cases are due to the vaccine. However, PRAC has requested the marketing authorisation holder to provide further detailed data, including an analysis of the events according to age and gender, in the context of the next pandemic summary safety report and will consider if any other regulatory action is needed. Additionally, the PRAC has requested the marketing authorisation holder for **COVID-19 Vaccine Moderna** – also an mRNA vaccine – to monitor similar cases with their vaccine and to also provide a detailed analysis of the events in the context of the next pandemic summary safety report. EMA will communicate further when new information becomes available.

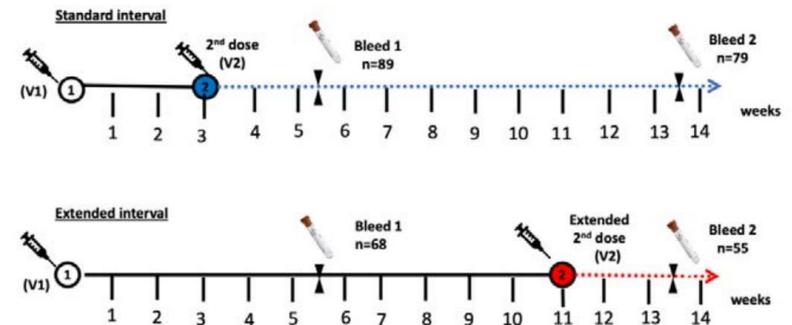


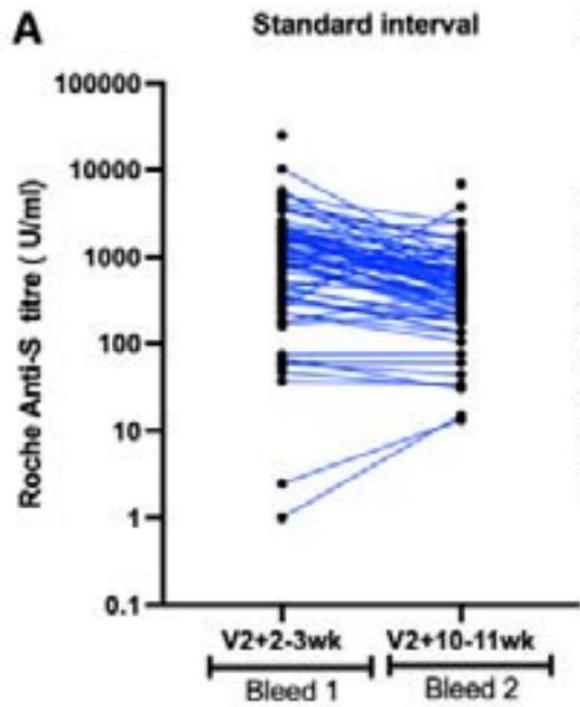
UK's Longer Pfizer Interval

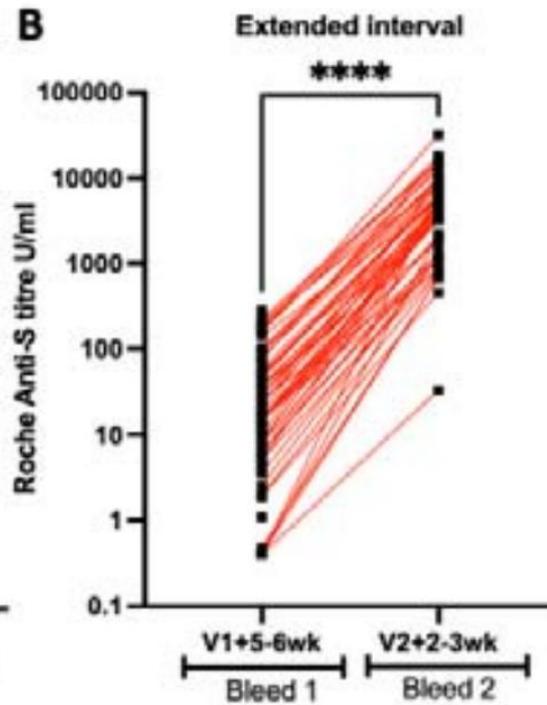
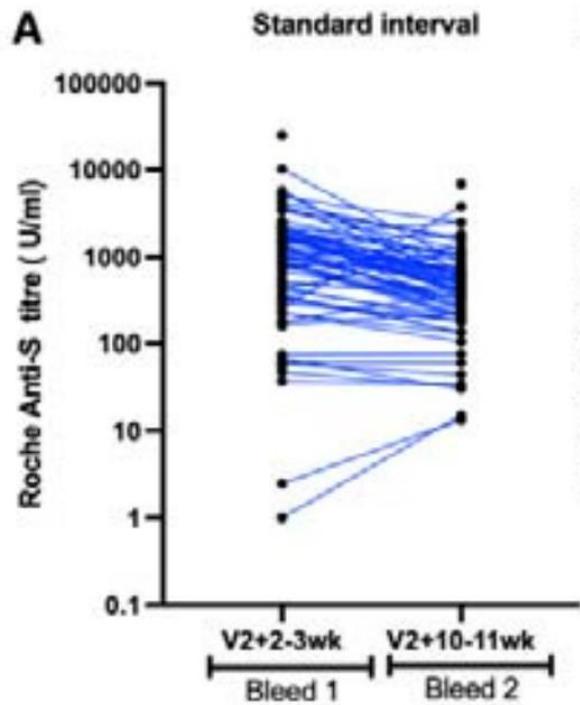
- UK elected longer interval between doses to extend limited supply and maximize number of people who would be partially protected from hospitalization and death
- [Preprint](#) among 172 persons over 80yo who had no evidence of previous infection comparing second doses at 3w vs 11-12w
 - 3.5-fold higher anti-spike antibody response
 - Cellular immune responses (T-Spot) were 3.6-fold lower
 - No difference in antibody level decline over 9 weeks post-final vaccination

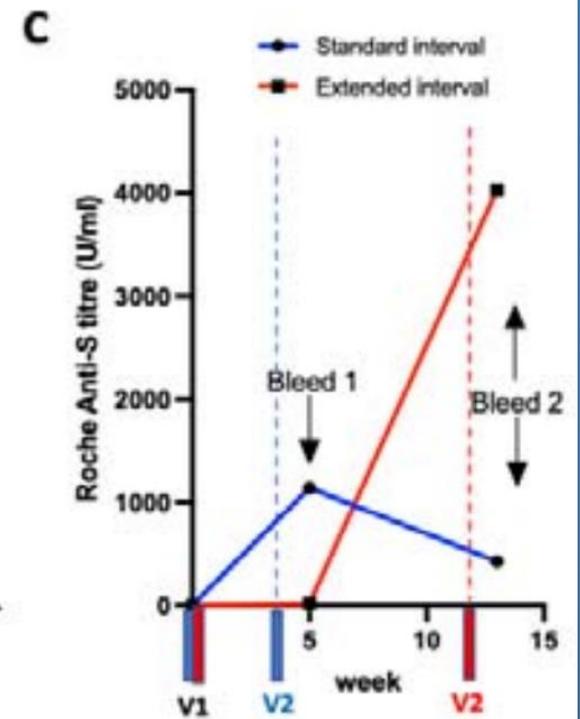
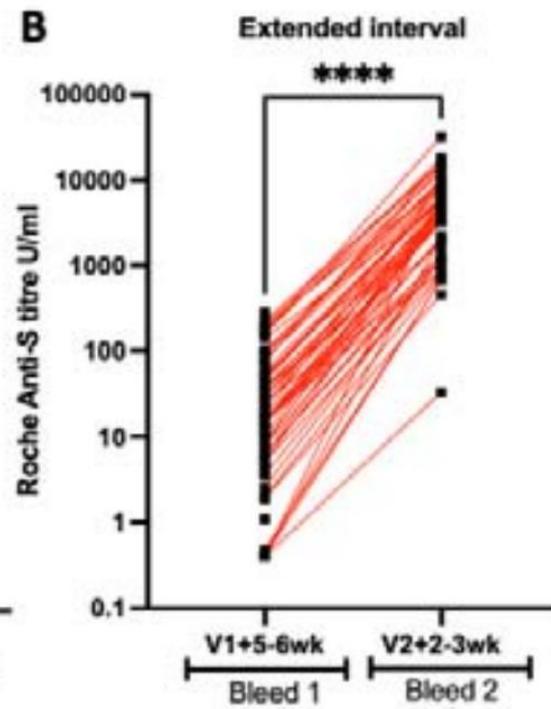
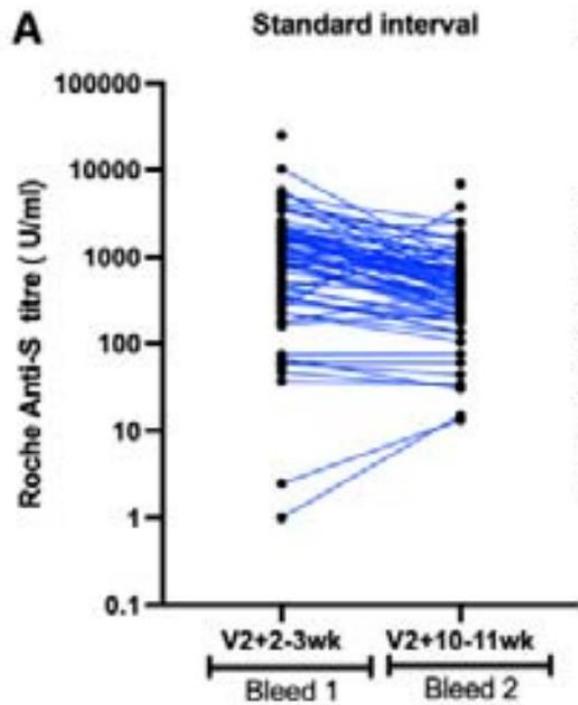
Extended interval BNT162b2 vaccination enhances peak antibody generation in older people

H Parry, R Bruton, C Stephens, K Brown, G Amirthalingam, B Hallis, A Otter, J Zuo, P Moss
doi: <https://doi.org/10.1101/2021.05.15.21257017>



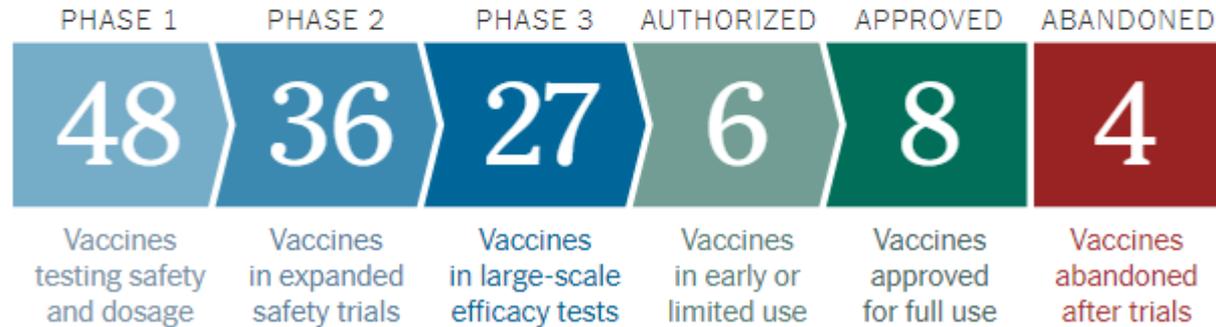






Coronavirus Vaccine Tracker

By [Carl Zimmer](#), [Jonathan Corum](#) and [Sui-Lee Wee](#) Updated May 4, 2021



Developer	How It Works	Phase	Status
Pfizer-BioNTech	mRNA		Approved in several countries. Emergency use in U.S., E.U., other countries.
Moderna	mRNA		Approved in Switzerland. Emergency use in U.S., E.U., other countries.
Gamaleya	Ad26, Ad5		Early use in Russia. Emergency use in other countries.
Oxford-AstraZeneca	ChAdOx1		Approved in Brazil. Stopped use in Denmark. Emergency use in U.K., E.U., other countries.
CanSino	Ad5		Approved in China. Emergency use in other countries.
Johnson & Johnson	Ad26		Emergency use in U.S., E.U., other countries. Paused in some countries. Stopped use in Denmark.
Vector Institute	Protein		Early use in Russia. Approved in Turkmenistan.
Novavax	Protein		
Sinopharm	Inactivated		Approved in China, U.A.E., Bahrain. Emergency use in other countries.
Sinovac	Inactivated		Approved in China. Emergency use in other countries.
Sinopharm-Wuhan	Inactivated		Approved in China. Limited use in U.A.E.
Bharat Biotech	Inactivated		Emergency use in India, other countries.

<https://www.nytimes.com/interactive/2020/science/coronavirus-vaccine-tracker.html>

Protein- Based (Protein Subunit) Vaccines

Acellular subunit vaccines that contain proteins but no genetic material

- Whole proteins or fragments
- Some on nanoparticles
- Some with adjuvants

All made using living organisms, such as bacteria and yeast, which require substrates on which to grow them, and strict hygiene to avoid contamination

- More expensive to produce than mRNA vaccines

Advantages

- Incapable of causing disease, very safe
- Suitable for people with compromised immune systems
- Stable
- Familiar: HBV, acellular pertussis

NOVAVAX

- Protein subunit vaccine, adjuvanted recombinant on nanoparticles
- 2-dose 21 days apart; stable 2-8°C; no diluent
- Preclinic and phase 1/2 trials demonstrated high immunogenicity

COVID - 19
Coronavirus
Vaccine

COVID - 19
Coronavirus
Vaccine

Injection only

COVID - 19

Coronavirus
Vaccine

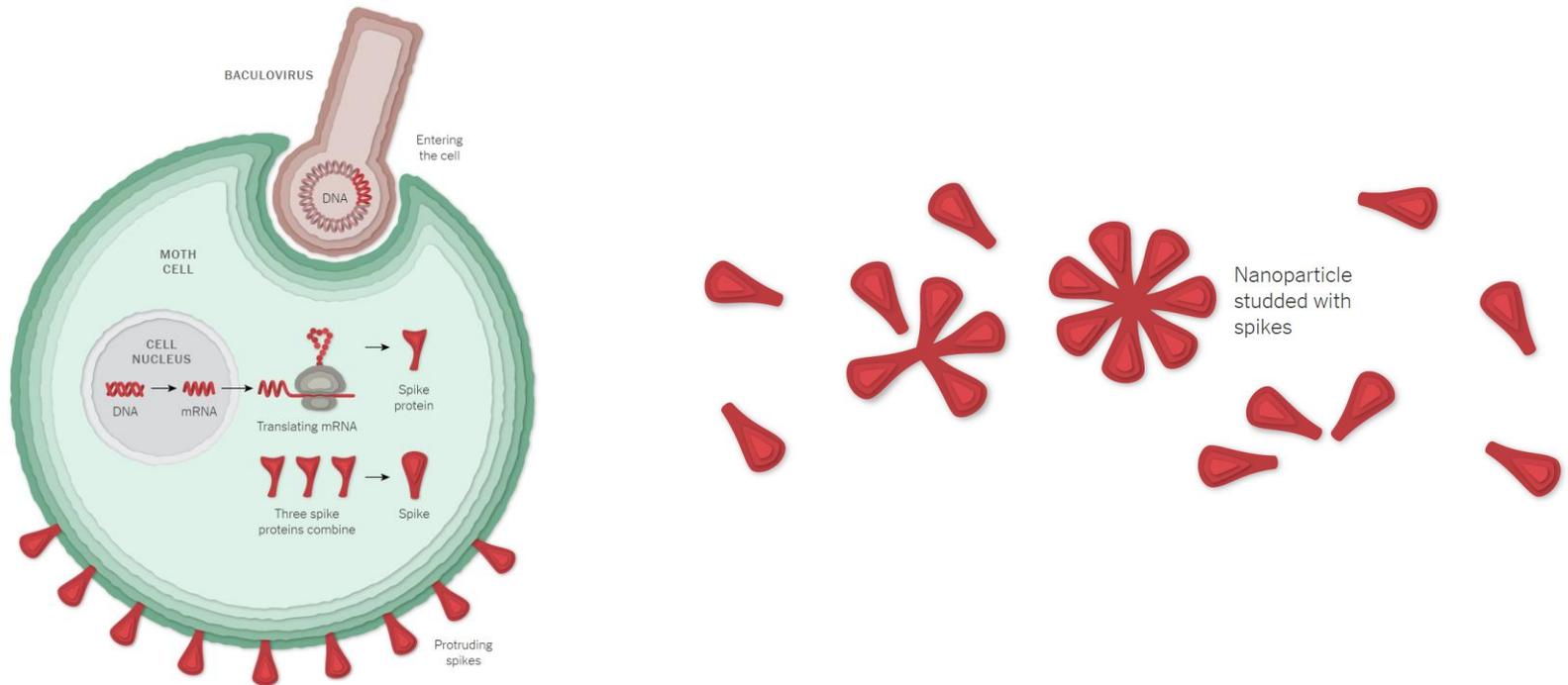
Injection only

COVID - 19

Coronavirus
Vaccine

Injection only

Infecting Moth Cells with a Modified DNA Virus



Sept
Phase 3
in 15k in
UK

96% against original
coronavirus

86% against B.1.1.7

49% against
B.1.351 - modifying

Novavax US Timeline Update

- Dec Phase 3 PREVENT-19 trial in 30k in 115 sites in US and Mexico of target populations
 - Feb 22 completed enrolment
 - May 3 announced including 3k 12-17 adolescents
- FDA EUA dossier expected May
- July shipping 1.1B doses to COVAX (GAVI, WHO, Coalition for Epidemic Preparedness Innovations)

Sanofi-GSK Adjuvanted Recombinant Protein Vaccine

- Based on the [same design as Flublok](#)
- Relevant DNA inserted into plasmid which combines with Baculovirus DNA which enters insect cells which then produce proteins
- Proteins harvested, purified, adjuvanted



Isolate
HA Gene



Recombine



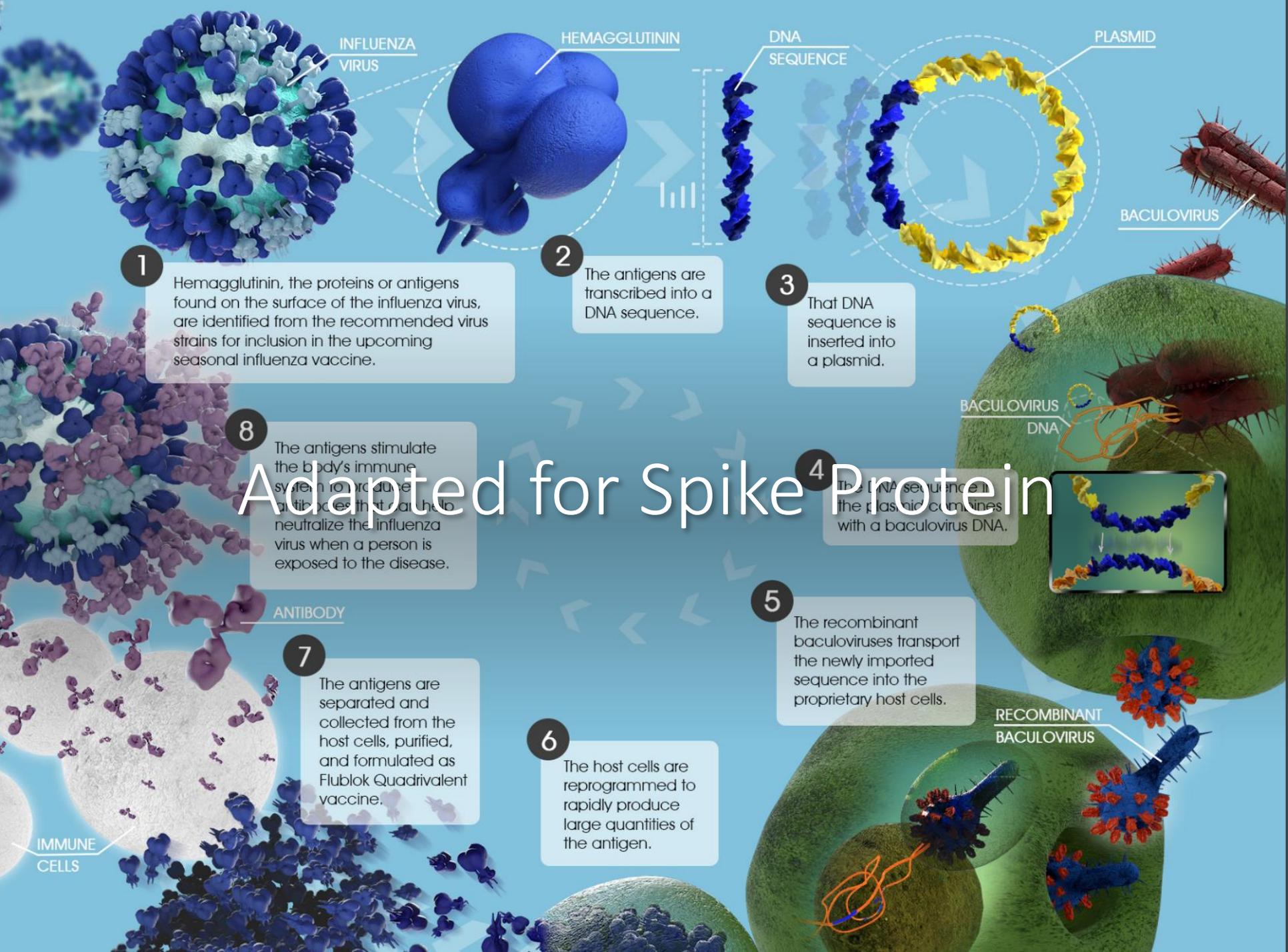
Translate



Harvest
& Purify



Recombinant
Influenza Vaccine



Sanofi-GSK Timeline

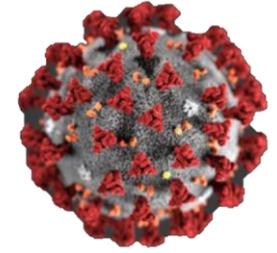
- OWS: 1 of 6 chosen, 2.1B USD for 100M doses
- Sept 2020 Ph 1/2 showed low Ab response in >50yo; revised formulation
- May 17 announced improved efficacy among 700 volunteers
- Imminent worldwide ph 3 of 35k with B.1.351 formulation; end Q4 2021
- Potential booster in US or primary for naïve globally



SANOFI

Empowering Life

New Hampshire Coronavirus Disease 2019 Weekly Call for Healthcare Providers and Public Health Partners



May 20, 2021

*Ben Chan
Elizabeth Talbot
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